

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
GRAND TRUNK RAILWAY AT BATTLE CREEK, MICH., ON
FEBRUARY 7, 1931.

March 3, 1931.

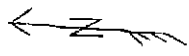
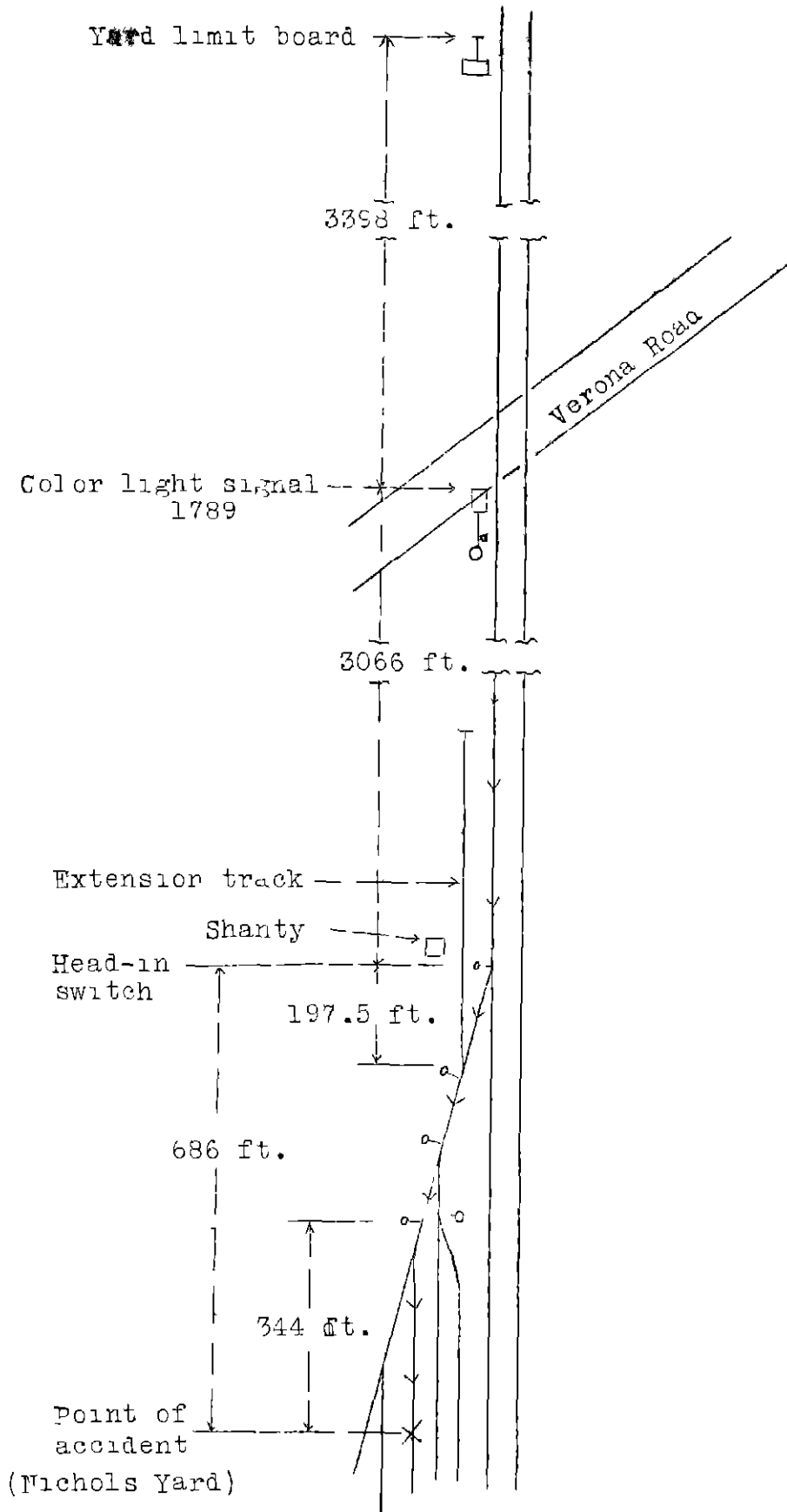
To the Commission

On February 7, 1931, there was a collision between a passenger train and a yard engine on the Grand Trunk Railway at Battle Creek, Mich., resulting in the injury of three passengers, three persons carried under contract, and five employees.

Location and method of operation

This accident occurred on the Flint Subdivision of the Chicago Division, extending between Port Huron and Battle Creek, Mich., a distance of 159.30 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. The accident occurred at the east end of Nichols yard, on yard track 3, at a point 686 feet west of the westbound main line head-in switch. Approaching the head-in switch from the east, the track is tangent for more than 2 miles, this tangent extending for a considerable distance beyond the head-in switch. The grade for westbound trains is slightly descending, being 0.24 per cent at the point of accident.

The head-in switch is a facing-point switch for westbound trains and is located 7,465 feet west of the east yard-limit board, the switch stand being located between the westbound main track and an adjoining extension track, being of the low type and equipped with banner and lamp. The head-in switch leads off the westbound main track to the north through a crossover to the extension track, which track parallels the main tracks on the north. The crossover extends from southeast to northwest and is 197.5 feet in length, at a point about 37 feet west of the west switch of the crossover there is another switch that leads to yard track 2, while the switch leading to yard track 3 is located about 100 feet farther west, the accident occurring on yard track 3 at a point 344 feet from its lead track switch. There is a switch-tender's shanty located on the north side of the tracks opposite the westbound main line head-in switch. Westbound automatic color light signal 1789 is located 3,066.6



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feet east of the head-in switch, at Verona Road, a public highway grade crossing; signal 1789 is 20 feet in height, and there is a head-in light signal located on the left side of the mast considerably below the automatic block signal lights. With both crossover switches reversed, that is, lined for a movement into Nichols yard, the automatic block signal 1789 displays a red indication and the yellow head-in light is displayed, when only one switch of the crossover is lined for a movement into the yard, the color light indication displays red, while the head-in light indication is not displayed.

The weather was cloudy at the time of the accident, which occurred about 12 45 p.m.

Description

Yard engine 7477, headed west, was in charge of Yard Foreman Morse and Engineman Cooper, it was standing on yard track 3, with a caboos coupled ahead of it, about one car-length from westbound freight train extra 3718, and was about to place the caboos on that train when the tender was struck by train No. 9.

Westbound passenger train No. 9 consisted of two baggage cars, one mail and express car, and one coach, in the order named, and was in charge of Conductor McGraw and Engineman Swan. The first and last cars were of wooden construction, while the second and third cars were of steel construction. This train left Bellevue, 11.9 miles east of Nichols Yard and the last open office, at 12.32 p.m., according to the train sheet, 17 minutes late, passed signal 1789 which was then displaying a proceed indication, entered the head-in switch which had been opened directly in front of the approaching train, and collided with yard engine 7477 while traveling at a speed estimated to have been between 20 and 30 miles per hour.

With the exception of one pair of wheels of the east truck of the first car in train No. 9, none of the equipment was derailed, although the first car was telescoped by the tender. Yard engine 7477 and the caboos ahead were driven into the rear car of the freight train standing on yard track 3, completely demolishing that car; the next car ahead was badly damaged.

Summary of evidence

Engineman Swan, of train No. 9, stated that his train approached Verona road crossing at a speed of about 55 miles per hour, which was the usual rate of speed. Signal 1789 was displaying a green indication. Just after passing Verona road crossing, he sounded one long

blast on the engine whistle, and on reaching a point about one-fourth mile west of the crossing he made a 6 or 8-pound brake-pipe reduction, and thought that shortly afterwards he made another light reduction, but was not certain about this last reduction. When about 400 or 500 feet from the head-in switch he noticed a man walking toward the west on the outside of the yard lead track, but did not know whether this man was a switchtender or was with the yard engine that was standing on yard track 3 behind the freight train. When the train was about 100 feet from the head-in switch the man turned and waved stop signals, violently, and started running toward the head-in switch, which the engineman then saw was open, he immediately applied the air brakes in emergency, at which time he estimated the speed to have been about 35 miles per hour, but the train entered the head-in switch and collided with yard engine 7477 while traveling at a speed estimated to have been between 25 and 30 miles per hour. The air brakes were in proper working order, but Engineman Swan was of the opinion that a full emergency effect was not obtained, owing to the previous service application, also saying that the rails were wet, slippery and that the grade was descending. Fireman Hanson gave testimony similar to that of Engineman Swan, the fireman said that his engine was about three or four car-lengths from the head-in switch when he noticed that the switch points were open, and before he could say anything, the engineman had applied the air brakes in emergency.

Conductor McGraw, of train No. 9, stated that approaching Verona road crossing the required engine whistle signal was sounded, two long and two short blasts, but that the engineman kept the two short blasts on a little longer than required, although not long enough to make them sound like the two long blasts, or to have them confused as a call for a head-in signal. Conductor McGraw estimated the speed to have been between 20 and 25 miles per hour at the time of the accident. Statements of Baggage-master DeGroat and Drakeman Cook developed nothing additional of importance.

Engineman Cooper, of yard engine 7477, stated that his engine was headed west and was standing on yard track 3, behind the freight train on that track, ready to place the caboose on it as soon as it was made up, he was sitting on his seat looking toward the east and the first he knew of anything wrong was when he saw the baggage car in train No. 8 swinging off the main track toward the yard lead track whereupon he shouted a warning of danger and he and his fireman both jumped just before the accident occurred. The statements of Fireman Henderson practically corroborated those of Engineman Cooper. Statements of Yard Foreman Morse, Yard Helpers

Lemmon and Mallory, also Conductor Sellers, of westbound freight train extra 3718, and Switchtender Van Spronsen, brought out nothing additional of importance.

Switchtender Cousinow, on duty at the east end of Nichols yard, stated that about 12 20 p.m. he lined the head-in switch for a movement of train No. 9 down the main track and then went back into the shanty to wait for that train to pass. At about 12.35 p.m., however, Yardmaster Barrows telephoned him and said that "the local is out of Bellevue ahead of No. 9, head them in on No. 1." Switchtender Cousinow looked at his watch, saw that passenger train No. 9 was about due, and stood looking out of the shanty window for the approach of the local freight train. On seeing smoke he went outside, and then he heard four blasts sounded on the engine whistle, two long and two short blasts made up the signal required to be sounded as train No. 9 approached Verona road crossing, however, it was mistaken by Switchtender Cousinow to be the reduce speed signal sounded for the head-in switch by the local freight train, four short blasts. Switchtender Cousinow opened the main line crossover switch, and then walked down to open the extension track crossover switch, but on reaching a point about halfway between these switches he looked back, saw that the approaching train was getting close and ran ahead and opened the extension track switch. He turned around as he did so and then realized for the first time that it was not the local freight train but passenger train No. 9. The switchtender said he at once made an attempt to reach yard switch 2, in order to head the train down yard track 2, waving stop signals as he ran, but he could not reach the switch in time. Switchtender Cousinow further stated that when a freight train does come in ahead of a passenger train, it often occurs that there is no time to waste in getting the train into the yard in order to avoid delay to the passenger train, and when the head-in signal is sounded the switchtender throws the switch at once.

Yardmaster Barrows stated that after talking to Operator Thornton, he called the switchtender at the east end of Nichols yard and told him that "the local was out of Bellevue ahead of #9 and was coming in and to put them in #1 track." This matter was handled in the usual manner to cover a movement of this kind, it being customary to notify the switchtender of all trains out of Bellevue and to give him the track for such train in order to avoid stopping the train at Verona. Yardmaster Barrows stated that no trouble had been experienced before with a movement of this kind during the 12 years he had been there, and that there would have been no trouble in this case had the switchtender followed the

instructions, which are to have main track switches closed and locked 10 minutes before passenger trains are due, and if a freight train should happen to arrive first it would not receive a head-in signal at signal 1789, but would continue until close to the switch and then call for it and keep on calling until it was given to them.

Operator Thornton, at Nichols yard, acknowledged telling Yardmaster Barrows that the local was by Bellevue at 12.20 p m , and was coming into Nichols ahead of train No. 9. It seems that Operator Thornton had listened in while the operator at Bellevue reported train No. 473, the local freight train, to the dispatcher, and understood that operator to report the local as "by" Bellevue, when as a matter of fact the operator at Bellevue reported that train as having "arrived ". The only way Operator Thornton could account for the misunderstanding between the words "by" and "arrived", was that over the telephone the word "arrived", when cut short, sounded somewhat similar to the word "by". Operator Thornton said that he had received no instructions in regard to informing the yardmaster that freight trains are coming in ahead of passenger trains from Bellevue, only requests from the yardmaster to give that information as the freight trains pass Bellevue, which information was given to the yardmaster voluntarily by the operator, without instructions from any one to do so. Operator Thornton stated that he knew train No 9 was late and that he figured that train No. 473 would be in ahead of it and wanted the yardmaster to know it.

Conclusions

This accident was caused by a switch being opened directly in front of an approaching train, due to misinformation being given by Operator Thornton to Yardmaster Barrows, who in turn conveyed it to Switchtender Cousinow, and by the failure of Switchtender Cousinow properly to identify the approaching train before opening the switch.

Operator Thornton, at Nichols yard, was listening in on the telephone when the operator at Bellevue reported train No. 473, the local freight train, to the dispatcher at 12.20 p.m., and Operator Thornton misunderstood that operator to report the local freight train as being "by" that point, when as a matter of fact he reported it to the dispatcher as having "arrived ". Operator Thornton gave the incorrect information to Yardmaster Barrows, and he in turn gave it to Switchtender Cousinow. Operator Thornton simply gave what he thought was correct information, without being requested to do

so, and without any instructions having been issued requiring him to take such action. If he wanted to volunteer information, he should have obtained it from the proper authority, the train dispatcher, and not have depended on conversation not intended for him or for his guidance in any way.

Switchtender Cousinow had had the main line crossover switch closed since 12.30 p.m., 15 minutes before train No. 9 was due at Nichols yard, but after Yardmaster Barrows conveyed to him the wrong information obtained from Operator Thornton, Switchtender Cousinow understood that the local freight train would arrive ahead of train No. 9, mistook the road-crossing whistle for the head-in signal, and opened the head-in switch directly in front of the approaching train, apparently after that train had passed signal 1789, thinking that it was the local freight train, when he definitely realized that it was train No. 9, it was then too late to avert the accident. Switchtender Cousinow should not have opened the main line switch until it was definitely ascertained that the approaching train was the one which he intended to head into the yard.

Subsequent to the accident, vision tests were made of the head-in switch, under conditions similar to those that pertained at the time of the accident, and it was found that from the cab of the engine, the open switch points could be seen on reaching a point 510 feet east of the switch, while the switch banner, which had a dull red color and was hard to see on account of being so close to the ground, could not be seen until a point 400 feet east of the switch was reached.

The Commission's inspectors were advised by the superintendent of this railroad that the installation of a mast with signal lights, working in conjunction with the head-in switch, that can be seen at a safe distance, would be made. While this would provide an additional measure of protection, steps should also be taken to prevent information from being obtained and communicated to various employees in any such manner as was followed in this instance.

All of the employees involved were experienced men, and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.